

II. AMENDMENT TO SPECIFICATION:

Please accept an amendment to page ⁷~~10~~, line 5-14 as follows:

Referring to FIGS. 4-6, a second embodiment of the invention, which can be used alone or in combination with the first embodiment, is illustrated. In this embodiment, an aerodynamic fairing 150 is provided adjacent mounting structure 114. In one embodiment, an aerodynamic fairing 150 is provided on each end of mounting structure 114 that faces a direction of movement (indicated by arrows A1 and A2 in FIG. 4) in the step-and-scan exposure tool. That is, a leading and a trailing edge of mounting structure 114 each may include a fairing 150. Each aerodynamic fairing 150 includes a taper 152 ~~and~~ a portion 154 that covers an edge of mask 110 and is coplanar with pellicle 112, and a curved surface therebetween. In one embodiment, taper 152 extends smoothly away from the plane of pellicle 112 to a point at or below the surface of mask 110. As also shown in FIG. 4, aerodynamic fairing 150 exposes the whole surface of pellicle 112.

Please accept an amendment to page ⁸~~11~~, line 10 to page 12, line 6 as follows:

The high-speed laminar flow across pellicle 112, however, may induce pressure changes over the pellicle due to the Bernoulli effect, which may cause distortion in the pellicle. However, these pressure changes will be relatively uniform across mask 110 and can be compensated by a pressure difference in interior portion 116, as discussed above. In one embodiment, the magnitude of the Bernoulli forces as a function of scanning speed can be calculated and pressure P_1 dynamically adjusted by pressure regulator 120 to compensate for these forces. In this case,

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concluded*

stage 101 speed, i.e., pellicle speed, will be monitored and a computer or microprocessor (possibly part of pressure regulator 120) will use this input to calculate the pressure difference required to maintain the flatness of pellicle 112. If the scanning speed changes, a new pressure P_1 can be calculated and applied to interior portion 116. In another embodiment, a programmed variation of pressure P_1 versus time can be calculated. The pressure difference is then calculated to compensate for the varying aerodynamic forces on pellicle 112 throughout the scanning period and in the stationary periods between scans. This calculation may also take into consideration other forces acting on pellicle 112, e.g., gravitational forces, as discussed above. As an alternative to the above calculations, pressure P_1 can be actively controlled by a feedback system using a position sensor 134, as discussed above, to detect distortions in pellicle 112.
